REMARKS

Reconsideration of this application, as presently amended, is respectfully requested. Claims 1-6 are pending in this application. Claims 1 and 2 have been allowed. Claims 3-6 stand rejected.

Claim Rejections-35 U.S.C. §103

Claims 3-6 are rejected under 35 U.S.C §103 as being unpatentable over **Joanblanq** (USP 6,947,097, previously cited) in view of **Konuma** (USP 7,023,490, previously cited). Claims 3-6 are rejected under 35 U.S.C §103 as being unpatentable over **Joanblanq** (USP 6,947,097) in view of **Ebihara** (USP 5,956,092, previously cited). For the reasons set forth in detail below, this rejection is respectfully traversed.

Claims 3 and 4

Claims 3 and 4 have been amended to clarify that the "means for moving" moves the position of the letter box "by one pixel" in response to the calculation means calculating that the average values of the luminances is lower than a predetermined value.

The **Joanblanq** reference discloses a process for detecting black bands in a video image, such as horizontal black bars (i.e., letterbox format) at the top and bottom of a television image. The process for detecting black bands includes (1) calculating, for respective lines situated in the usual location of a black band, a value related to a maximum number of points having the same luminance value; (2) averaging the calculated values for the lines; (3) calculating a threshold

dependent on the average; and (4) comparing a value related to a maximum number of points having the same luminance value for a new line with the calculated threshold. See, e.g., Abstract and col. 1, lines 29-40.

However, **Joanblanq** is primarily related to the detection of the black bands and discloses only one use of the process for detection of the black bands, that is, triggering an automatic zoom by the detection of horizontal bars so as to display a full-screen image (see col. 2, lines 44-47).

Joanblanq is silent with respect to "means for moving the display position of the letter box by one pixel in response to the calculation means calculating that the average value of the luminances is lower than a predetermined value."

The **Konuma** reference discloses a picture processing apparatus and method for a television receiver that performs multiple picture display and a reduced picture display of a video signal having side panel portions or a video signal having letterbox portions. In the case the input video signal is a side panel signal or a letterbox signal, when the multiple picture display process or the reduced picture display process is performed, only a video signal of the effective picture area is extracted from the video signal (see col. 6, lines 44-52 and Figs. 6A and 6B).

Thus, in accordance with the **Konuma** reference, when the multiple-picture displaying process or the reduced picture displaying process is performed, if an input video signal is a side panel signal or a letter box signal, only a video signal corresponding to the effective picture area is extracted from the input video signal and displayed. As a result, when the multiple-picture displaying process is performed, a picture formed with a side panel signal or a letter box signal

can be prevented from becoming small. When the reduced picture displaying process is performed, a wasteful portion can be prevented from being displayed. See col. 7, lines 26-36.

However, the **Konuma** reference teaches removing the black bands by extracting and displaying only the video signal corresponding to the effective picture area when multiple picture display or reduced picture display is performed. ***Konuma** is silent with respect to "means for moving the display position of the letter box **by one pixel** in response to the calculation means calculating that the average value of the luminances is lower than a predetermined value."*

Ebihara et al. discloses a television receiver that can automatically control the aspect ratio of an incoming video signal. More particularly, according to **Ebihara et al.**, a picture signal analysis circuit 101 analyses whether or not pictures represented by the incoming video signals have upper and lower noneffective mask regions (black bands). The picture analysis circuit 101 outputs a signal to an aspect converting circuit 102 to convert the aspect to provide an optimal or most desirable aspect (see, e.g., col. 9, lines 31-50). The aspect converting circuit has various modes of changing the aspect, as described e.g., in col. 10, lines 5-67 of **Ebihara et al.**

The Examiner appears to rely primarily on the **Ebihara et al.** reference to teach "moving the position of the letterbox" (see, e.g., Office Action, page 8, lines 10-13). However, **Ebihara et al.** teaches changing the aspect ratio of the display and does not teach *"means for moving the display position of the letter box **by one pixel** in response to the calculation means calculating that the average value of the luminances is lower than a predetermined value."*

In view of the above remarks, it is respectfully submitted that none of the references disclose or suggest "means for moving the display position of the letter box by one pixel in

response to the calculation means calculating that the average value of the luminances is lower

than a predetermined value," as recited in claims 3 and 4. By moving the display position of the

letterbox [side panel] by a small amount (one pixel), the change is not troublesome to the viewer.

Accordingly, reconsideration and withdrawal of the rejection of claims 3 and 4 are

respectfully requested.

Claims 5 and 6

Claims 5 and 6 have been amended to clarify the structure corresponding to the "scene

change detection means". Support for the changes to claims 5 and 6 is provided, e.g., in the

application specification, page 31, lines 9-22, which describe the following:

"The difference detection circuit (701) calculates the difference between the accumulated

value (or the average value) of luminances in pixel units of a video in the preceding frame and

the accumulated value (or the average value) of luminances in pixel units of a video in the

current frame, and sends the difference to the CPU (105)."

"The CPU (105) judges whether or not the difference between the accumulated values (or

the average values) of the luminances in pixel units which is sent from the difference detection

circuit (701) is more than a predetermined threshold value. When the difference between the

accumulated values (or the average values) of the luminances in pixel units is more than the

threshold value, it is judged that *a scene change* occurs."

On page 6, lines 11-20 of the Office Action, the Examiner asserts that the **Joanblanq**

reference discloses the claimed "scene change detection means". However, it is respectfully

submitted that the **Joanblanq** reference does not disclose or suggest a "scene change detection means" corresponding to a difference detection circuit 701 that calculates the difference between the accumulated value (or the average value) of luminances in pixel units of a video in a preceding frame and the accumulated value (or the average value) of luminances in pixel units of a video in the current frame, and a processor that compares the difference to a threshold value.

In contrast, **Joanblanq** discloses methods of detecting black bands in a video image, all of which methods include detecting luminance values in parts of an image situated in the usual location of a black band in the image (see, e.g., col. 3, lines 45-50), and comparing the detected luminance values to threshold values. However, **Joanblanq** does not disclose or suggest the presently claimed difference detection device and processor that calculate a difference between accumulated values of luminances of pixels in a current and preceding frames, and compares the difference to a threshold to determine a scene change.

It is also submitted that neither **Ebihara et al.** nor **Konuma** alleviate any of the deficiencies of **Joanblanq**.

Accordingly, in view of the above amendments and remarks, reconsideration and withdrawal of the rejection of claims 5 and 6 are respectfully requested.

CONCLUSION

In view of the foregoing amendments and accompanying remarks, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.
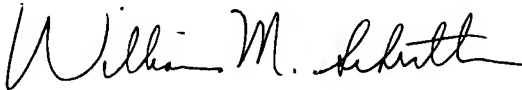
If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

William M. Schertler
Attorney for Applicants
Registration No. 35,348
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

WMS/dlt